#### I. GENERAL

THIS PROJECT INVOLVES INSTALLATION OF APS/CPS PEDESTRIAN EQUIPMENT ON THE WEST LEG OF THE INTERSECTION, THE INSTALLATION OF VIDEO DETECTION EQUIPMENT, AND LED TRAFFIC SIGNAL HEADS AT THE INTERSECTION OF MD 214 (CENTRAL AVENUE) AT CAMERON GROVE BOULEVARD / SIX FLAGS ENTRANCE IN PRINCE GEORGE'S COUNTY. MD 214 (CENTRAL AVENUE) IS ASSUMED TO RUN IN AN EAST - WEST DIRECTION.

## II. INTERSECTION OPERATION

PROJECT DESCRIPTION

THIS INTERSECTION OPERATES IN A NEMA SIX-PHASE FULLY-TRAFFIC-ACTUATED MODE, THERE IS AN EXCLUSIVE LEFT-TURN PHASE FOR THE EASTBOUND AND WESTBOUND MOVEMENTS OF MD 214. THE NORTHBOUND AND SOUTHBOUND MOVEMENTS OPERATE CONCURRENTLY. THERE IS AN ALTERNATE PEDESTRIAN PHASE ACROSS THE WEST LEG OF THE INTERSECTION.

## III.PEDESTRIAN OPERATION

NAVIGATOR AUDIBLE PEDESTRIAN PUSHBUTTONS TO CROSS THE WEST LEG OF THE INTERSECTION ARE TO BE PROVIDED. WHEN THE PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED PERIOD OF TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE:

WEST: "WAIT TO CROSS CENTRAL AT CAMERON GROVE / SIX FLAGS ENTRANCE. WAIT."

WHEN THE WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

#### 1. CONTACT PERSONS

THE CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

DISTRICT 3 MR. VENU NEMANI ASSISTANT DISTRICT ENGINEER - TRAFFIC (PG) 301-513-7404

MR. VICTOR GRAFTON

UTILITY ENGINEER 301-513-7350 MR. TOM FOUNTAIN

ASSISTANT DISTRICT ENGINEER - MAINTENANCE 301-513-7304

MR. DUANE BERNARD ASSISTANT DISTRICT ENGINEER - CONSTRUCTION 301-513-7385

MR. EUGENE BAILEY MANAGER SIGN OPERATIONS 410-787-7670

> MR. MIKE STOCKER SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE) 410-787-7668

ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS

OFFICE OF TRAFFIC AND SAFETY

CHIEF, TRAFFIC OPERATIONS

MANAGER SIGNAL OPERATIONS

MS. CORREN JOHNSON

410-787-7630

410-787-7630

410-787-7650

MR. ED RODENHIZER

VACANT

MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE FOLLOWING STANDARD PLATES FOR TRAFFIC CONTROL: MD 104.03-11, MD 104.04-13 THROUGH MD 104.04-16.

# 2. EQUIPMENT LIST

ITEM NO. QUANTITY UNIT

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM NO. QUANTITY UNIT DESCRIPTION 900000 VIDEO DETECTION INTERFACE EQUIPMENT: 1-8 CAMERAS SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN 900000

R10-3(1) (9"X15"), 3 EA, 3 SF B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

DESCRIPTION

100000 MAINTENANCE OF TRAFFIC (PER INTERSECTION) 203030 CY TEST PIT EXCAVATION 12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES 585621 185 585700 250 REMOVAL OF EXISTING PAVEMENT MARKING LINES, ANY WIDTH 600000 TYPE A COMBINATION CURB AND GUTTER ANY HEIGHT OR DEPTH 21 655105 210 5 INCH CONCRETE SIDEWALK 655120 DETECTABLE WARNING SURFACE FOR CURB RAMPS 8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION 800000 800000 EΑ 2-WIRE APS CENTRAL CONTROL UNIT AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS 800000 EΑ 800000 EΑ 16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD

IP-BASED VIDEO DETECTION CAMERA & ANY LENGTH LEAD-IN CABLE 800000 800000 5 FOOT OR 10 FOOT PEDESTAL POLE WITH BREAKAWAY COUPLINGS, FOUNDATION & GROUND ROD 800000 REMOVE & DISPOSE OF EXISTING SIGNAL EQUIPMENT (PER SIGNALIZED INTERSECTION LOCATION) 800000 UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE) 800000 THIRD PARTY CONCRETE TESTING (PER INTERSECTION) 800000 EΑ 802501 NO. 6 AWG STRANDED BARE COPPER GROUND WIRE 12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION 860284 38 ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG) 861105

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA ALL EQUIPMENT TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

WIRING LEGEND

A,B,C,D,E,F,G,H,J,K,L,M,N,O - CONNECT TO EXISTING CABLE P,R - 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) S.T.U.V - VIDEO DETECTION CONTROL CABLE

W - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

→ GROUND ROD

R R Y Y G G RYG R Y G Y G | ←G-| ←G-| R | ←G-| ←G-| R | R | R | R | R | R | R | DW | DW PHASE 1 AND 5 PHASE 1 AND 5 CHANGE MAY CHANGE TO PHASE 1 AND 6, 2 AND 5, OR 2 AND 6 PHASE 1 AND 6 R | R | DW | DW 4Y/G- |4Y/G- | G 1 AND 6 CHANGE PHASE 2 AND 5 | **4G/G-**|4**G/G-**| R | R | 4Y/G-|4Y/G- | 2 AND 5 CHANGE PHASE 2 AND 6 2 AND 6 CHANGE G G G G PHASE 4 AND 8 4 AND 8 CHANGE Y | DW | DW 日午 G G WK WK PHASE 4 AND 8 ALT R | R | R | G | G G

R | R | R | R | R | Y |

1 2 3 4 5

PHASE CHART

G

FL/Y | FL/Y | FL/Y | FL/Y | FL/Y | FL/Y | FL/R | FL/R | FL/R | FL/R | FL/R | DARK DARK

G

Υ

12 13 14

G | G | FDW | FDW |

Y | Y | DW | DW

TRAFFIC ENGINEERING DESIGN DIVISION

MD 214 (CENTRAL AVENUE) AT

CAMERON GROVE BOULEVARD / SIX FLAGS ENTRANCE

KETTERING, MARYLAND

**GENERAL INFORMATION SHEET** 

SCALE N.T.S. ADVERTISED DATE 05/2013 CONTRACT NO. XY1515185

DRAWING SG-3 OF 3

COUNTY PRINCE GEORGE'S

16021407.673

SHEET NO. 6 OF 9

LOGMILE \_\_\_\_

TIMS NO. \_\_\_\_\_

TOD NO. \_\_\_\_

DESIGNED BY \_\_\_\_AF/AMH\_\_\_\_

CHECKED BY JFL

DRAWN BY

F.A.P. NO. \_\_\_

TS NO.4205B-GI

WIRING DIAGRAM 250 R.S.U~\_/ 2001 EXISTING INTERCONNECT TO MD 193 EXISTING INTERCONNECT TO SIX FLAGS ENTRANCE R.S.U→ - P,R,S,T,U,V P,R,S,U,V ---STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY

PED CLEARANCE

FLASHING

**OPERATION** 

4 AND 8 ALT CHANGE

SCIENTISTS CONSTRUCTION MANAGERS 936 RIDGEBROOK ROAD Sparks, Maryland 21152 Telephone: (410) 316-7800

TECHNOLOGIES FAX: (410) 316-7818

PLOTTED: "12:03 PM on Tuesday, June 11, 2013" LE: M:\2009\01090619.92\drawings\pSG-N007\_MD214.dgn